

ABSTRACT

A touch screen digitizing system includes a touch screen unit including a first resistive sheet with opposed x+ and x- terminals and a second resistive sheet with opposed y+ and y- terminals, and an ADC having first and second reference input terminals. A first switch is coupled between a first reference voltage and the x- terminal, and a second switch is coupled between the x+ terminal and a second reference voltage for energizing the first resistive sheet. A third switch is coupled between the first reference voltage and the y- terminal, and a fourth switch is coupled between the y+ terminal and the second reference voltage for energizing the second resistive sheet. Switching circuitry couples an input of the ADC to the y+ terminal while the first resistive sheet is energized and the second resistive sheet is not energized, and also couples the input to the x+ terminal while the second resistive sheet is energized and the first resistive sheet is not energized. The structure provides continuous calibration of the full-scale analog touch screen output of the full-scale digital output of the ADC irrespective of sharply different variations in resistances of the switches and resistive sheets.